

(iv) Number of pumps for which leaks were not repaired as required in § 60.482-2(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in § 60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in § 60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of §§ 60.483-1 or 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with § 60.8 of the General Provisions. The provisions of § 60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61763, Oct. 17, 2000; 72 FR 64883, Nov. 16, 2007]

#### § 60.488 Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable new facility" under § 60.15: pump seals, nuts and bolts, rupture disks, and packings.

(b) Under § 60.15, the "fixed capital cost of new components" includes the fixed capital cost of all depreciable components (except components specified in § 60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the "Applicability and designation of affected facility" section of the appropriate subpart.) For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

[49 FR 22608, May 30, 1984]

#### § 60.489 List of chemicals produced by affected facilities.

The following chemicals are produced, as intermediates or final products, by process units covered under this subpart. The applicability date for process units producing one or more of these chemicals is January 5, 1981.

CAS No. <sup>a</sup>	Chemical
105-57-7 .....	Acetal.
75-07-0 .....	Acetaldehyde.
107-89-1 .....	Acetaldol.
60-35-5 .....	Acetamide.
103-84-4 .....	Acetanilide.
64-19-7 .....	Acetic acid.
108-24-7 .....	Acetic anhydride.
67-64-1 .....	Acetone.
75-86-5 .....	Acetone cyanohydrin.
75-05-8 .....	Acetonitrile.
98-86-2 .....	Acetophenone.
75-36-5 .....	Acetyl chloride.
74-86-2 .....	Acetylene.
107-02-8 .....	Acrolein.
79-06-1 .....	Acrylamide.
79-10-7 .....	Acrylic acid.
107-13-1 .....	Acrylonitrile.
124-04-9 .....	Adipic acid.
111-69-3 .....	Adiponitrile.
( <sup>b</sup> ) .....	Alkyl naphthalenes.
107-18-6 .....	Allyl alcohol.

CAS No. <sup>a</sup>	Chemical
107–05–1 .....	Allyl chloride.
1321–11–5 .....	Aminobenzoic acid.
111–41–1 .....	Aminoethylethanolamine.
123–30–8 .....	p-Aminophenol.
628–63–7, 123–92–2 .....	Amyl acetates.
71–41–0 <sup>c</sup> .....	Amyl alcohols.
110–58–7 .....	Amyl amine.
543–59–9 .....	Amyl chloride.
110–66–7 <sup>c</sup> .....	Amyl mercaptans.
1322–06–1 .....	Amyl phenol.
62–53–3 .....	Aniline.
142–04–1 .....	Aniline hydrochloride.
29191–52–4 .....	Anisidine.
100–66–3 .....	Anisole.
118–92–3 .....	Anthranilic acid.
84–65–1 .....	Anthraquinone.
100–52–7 .....	Benzaldehyde.
55–21–0 .....	Benzamide.
71–43–2 .....	Benzene.
98–48–6 .....	Benzenedisulfonic acid.
98–11–3 .....	Benzenesulfonic acid.
134–81–6 .....	Benzil.
76–93–7 .....	Benzilic acid.
65–85–0 .....	Benzoic acid.
119–53–9 .....	Benzoin.
100–47–0 .....	Benzonitrile.
119–61–9 .....	Benzophenone.
98–07–7 .....	Benzotrichloride.
98–88–4 .....	Benzoyl chloride.
100–51–6 .....	Benzyl alcohol.
100–46–9 .....	Benzylamine.
120–51–4 .....	Benzyl benzoate.
100–44–7 .....	Benzyl chloride.
98–87–3 .....	Benzyl dichloride.
92–52–4 .....	Biphenyl.
80–05–7 .....	Bisphenol A.
10–86–1 .....	Bromobenzene.
27497–51–4 .....	Bromonaphthalene.
106–99–0 .....	Butadiene.
106–98–9 .....	1-butene.
123–86–4 .....	n-butyl acetate.
141–32–2 .....	n-butyl acrylate.
71–36–3 .....	n-butyl alcohol.
78–92–2 .....	s-butyl alcohol.
75–65–0 .....	t-butyl alcohol.
109–73–9 .....	n-butylamine.
13952–84–6 .....	s-butylamine.
75–64–9 .....	t-butylamine.
98–73–7 .....	p-tert-butyl benzoic acid.
107–88–0 .....	1,3-butylene glycol.
123–72–8 .....	n-butyraldehyde.
107–92–6 .....	Butyric acid.
106–31–0 .....	Butyric anhydride.
109–74–0 .....	Butyronitrile.
105–60–2 .....	Caprolactam.
75–1–50 .....	Carbon disulfide.
558–13–4 .....	Carbon tetrabromide.
56–23–5 .....	Carbon tetrachloride.
9004–35–7 .....	Cellulose acetate.
79–11–8 .....	Chloroacetic acid.
108–42–9 .....	m-chloroaniline.
95–51–2 .....	o-chloroaniline.
106–47–8 .....	p-chloroaniline.
35913–09–8 .....	Chlorobenzaldehyde.
108–90–7 .....	Chlorobenzene.
118–91–2, 535–80–8, 74–11–3 <sup>c</sup> .....	Chlorobenzoic acid.
2136–81–4, 2136–89–2, 5216–25–1 <sup>c</sup> .....	Chlorobenzotrichloride.
1321–03–5 .....	Chlorobenzoyl chloride.
25497–29–4 .....	Chlorodifluoromethane.

CAS No. <sup>a</sup>	Chemical
75–45–6 .....	Chlorodifluoroethane.
67–66–3 .....	Chloroform.
25586–43–0 .....	Chloronaphthalene.
88–73–3 .....	o-chloronitrobenzene.
100–00–5 .....	p-chloronitrobenzene.
25167–80–0 .....	Chlorophenols.
126–99–8 .....	Chloroprene.
7790–94–5 .....	Chlorosulfonic acid.
108–41–8 .....	m-chlorotoluene.
95–49–8 .....	o-chlorotoluene.
106–43–4 .....	p-chlorotoluene.
75–72–9 .....	Chlorotrifluoromethane.
108–39–4 .....	m-cresol.
95–48–7 .....	o-cresol.
106–44–5 .....	p-cresol.
1319–77–3 .....	Mixed cresols.
1319–77–3 .....	Cresylic acid.
4170–30–0 .....	Crotonaldehyde.
3724–65–0 .....	Crotonic acid.
98–82–8 .....	Cumene.
80–15–9 .....	Cumene hydroperoxide.
372–09–8 .....	Cyanoacetic acid.
506–77–4 .....	Cyanogen chloride.
108–80–5 .....	Cyanuric acid.
108–77–0 .....	Cyanuric chloride.
110–82–7 .....	Cyclohexane.
108–93–0 .....	Cyclohexanol.
108–94–1 .....	Cyclohexanone.
110–83–8 .....	Cyclohexene.
108–91–8 .....	Cyclohexylamine.
111–76–4 .....	Cyclooctadiene.
112–30–1 .....	Decanol.
123–42–2 .....	Diacetone alcohol.
27576–04–1 .....	Diaminobenzoic acid.
95–76–1, 95–82–9, 554–00–7, 608–27–5, 608–31–1, 626–43–7, 27134–27–6, 57311–92–9 <sup>c</sup> .....	Dichloroaniline.
541–73–1 .....	m-dichlorobenzene.
95–50–1 .....	o-dichlorobenzene.
106–46–7 .....	p-dichlorobenzene.
75–71–8 .....	Dichlorodifluoromethane.
111–44–4 .....	Dichloroethyl ether.
107–06–2 .....	1,2-dichloroethane (EDC).
96–23–1 .....	Dichlorohydrin.
26952–23–8 .....	Dichloropropene.
101–83–7 .....	Dicyclohexylamine.
109–89–7 .....	Diethylamine.
111–46–6 .....	Diethylene glycol.
112–36–7 .....	Diethylene glycol diethyl ether.
111–96–6 .....	Diethylene glycol dimethyl ether.
112–34–5 .....	Diethylene glycol monobutyl ether.
124–17–4 .....	Diethylene glycol monobutyl ether acetate.
111–90–0 .....	Diethylene glycol monoethyl ether.
112–15–2 .....	Diethylene glycol monoethyl ether acetate.
111–77–3 .....	Diethylene glycol monomethyl ether.
64–67–5 .....	Diethyl sulfate.
75–37–6 .....	Difluoroethane.
25167–70–8 .....	Diisobutylene.
26761–40–0 .....	Diisodecyl phthalate.
27554–26–3 .....	Diisooctyl phthalate.
674–82–8 .....	Diketene.
124–40–3 .....	Dimethylamine.
121–69–7 .....	N,N-dimethylaniline.
115–10–6 .....	N,N-dimethyl ether.
68–12–2 .....	N,N-dimethylformamide.
57–14–7 .....	Dimethylhydrazine.
77–78–1 .....	Dimethyl sulfate.
75–18–3 .....	Dimethyl sulfide.

# Environmental Protection Agency

\$ 60.489

CAS No. <sup>a</sup>	Chemical	CAS No. <sup>a</sup>	Chemical
67-68-5 .....	Dimethyl sulfoxide.	79-31-2 .....	Isobutyric acid.
120-61-6 .....	Dimethyl terephthalate.	25339-17-7 .....	Isodecanol.
99-34-3 .....	3,5-dinitrobenzoic acid.	26952-21-6 .....	Isooctyl alcohol.
51-28-5 .....	Dinitrophenol.	78-78-4 .....	Isopentane.
25321-14-6 .....	Dinitrotoluene.	78-59-1 .....	Isophorone.
123-91-1 .....	Dioxane.	121-91-5 .....	Isophthalic acid.
646-06-0 .....	Dioxilane.	78-79-5 .....	Isoprene.
122-39-4 .....	Diphenylamine.	67-63-0 .....	Isopropanol.
101-84-8 .....	Diphenyl oxide.	108-21-4 .....	Isopropyl acetate.
102-08-9 .....	Diphenyl thiourea.	75-31-0 .....	Isopropylamine.
25265-71-8 .....	Dipropylene glycol.	75-29-6 .....	Isopropyl chloride.
25378-22-7 .....	Dodecene.	25168-06-3 .....	Isopropylphenol.
28675-17-4 .....	Dodecylaniline.	463-51-4 .....	Ketene.
27193-86-8 .....	Dodecylphenol.	( <sup>b</sup> ) .....	Linear alkyl sulfonate.
106-89-8 .....	Epichlorohydrin.	123-01-3 .....	Linear alkylbenzene (linear dodecylbenzene).
64-17-5 .....	Ethanol.	110-16-7 .....	Maleic acid.
141-43-5 <sup>c</sup> .....	Ethanolamines.	108-31-6 .....	Maleic anhydride.
141-78-6 .....	Ethyl acetate.	6915-15-7 .....	Malic acid.
141-97-9 .....	Ethyl acetoacetate.	141-79-7 .....	Mesityl oxide.
140-88-5 .....	Ethyl acrylate.	121-47-1 .....	Metanilic acid.
75-04-7 .....	Ethylamine.	79-41-4 .....	Methacrylic acid.
100-41-4 .....	Ethylbenzene.	563-47-3 .....	Methallyl chloride.
74-96-4 .....	Ethyl bromide.	67-56-1 .....	Methanol.
9004-57-3 .....	Ethylcellulose.	79-20-9 .....	Methyl acetate.
75-00-3 .....	Ethyl chloride.	105-45-3 .....	Methyl acetoacetate.
105-39-5 .....	Ethyl chloroacetate.	74-89-5 .....	Methylamine.
105-56-6 .....	Ethylcyanoacetate.	100-61-8 .....	n-methylaniline.
74-85-1 .....	Ethylene.	74-83-9 .....	Methyl bromide.
96-49-1 .....	Ethylene carbonate.	37365-71-2 .....	Methyl butynol.
107-07-3 .....	Ethylene chlorohydrin.	74-87-3 .....	Methyl chloride.
107-15-3 .....	Ethylenediamine.	108-87-2 .....	Methylcyclohexane.
106-93-4 .....	Ethylene dibromide.	1331-22-2 .....	Methylcyclohexanone.
107-21-1 .....	Ethylene glycol.	75-09-2 .....	Methylene chloride.
111-55-7 .....	Ethylene glycol diacetate.	101-77-9 .....	Methylene dianiline.
110-71-4 .....	Ethylene glycol dimethyl ether.	101-68-8 .....	Methylene diphenyl diisocyanate.
111-76-2 .....	Ethylene glycol monobutyl ether.	78-93-3 .....	Methyl ethyl ketone.
112-07-2 .....	Ethylene glycol monobutyl ether acetate.	107-31-3 .....	Methyl formate.
110-80-5 .....	Ethylene glycol monoethyl ether.	108-11-2 .....	Methyl isobutyl carbinol.
111-15-9 .....	Ethylene glycol monethyl ether acetate.	108-10-1 .....	Methyl isobutyl ketone.
109-86-4 .....	Ethylene glycol monomethyl ether.	80-62-6 .....	Methyl methacrylate.
110-49-6 .....	Ethylene glycol monomethyl ether acetate.	77-75-8 .....	Methylpentynol.
122-99-6 .....	Ethylene glycol monophenyl ether.	98-83-9 .....	a-methylstyrene.
2807-30-9 .....	Ethylene glycol monopropyl ether.	110-91-8 .....	Morpholine.
75-21-8 .....	Ethylene oxide.	85-47-2 .....	a-naphthalene sulfonic acid.
60-29-7 .....	Ethyl ether	120-18-3 .....	b-naphthalene sulfonic acid.
104-76-7 .....	2-ethylhexanol.	90-15-3 .....	a-naphthol.
122-51-0 .....	Ethyl orthoformate.	135-19-3 .....	b-naphthol.
95-92-1 .....	Ethyl oxalate.	75-98-9 .....	Neopentanoic acid.
41892-71-1 .....	Ethyl sodium oxalacetate.	88-74-4 .....	o-nitroaniline.
50-00-0 .....	Formaldehyde.	100-01-6 .....	p-nitroaniline.
75-12-7 .....	Formamide.	91-23-6 .....	o-nitroanisole.
64-18-6 .....	Formic acid.	100-17-4 .....	p-nitroanisole.
110-17-8 .....	Fumaric acid.	98-95-3 .....	Nitrobenzene.
98-01-1 .....	Furfural.	27178-83-2 <sup>c</sup> .....	Nitrobenzoic acid (o,m, and p).
56-81-5 .....	Glycerol.	79-24-3 .....	Nitroethane.
26545-73-7 .....	Glycerol dichlorohydrin.	75-52-5 .....	Nitromethane.
25791-96-2 .....	Glycerol triether.	88-75-5 .....	2-Nitrophenol.
56-40-6 .....	Glycine.	25322-01-4 .....	Nitropropane.
107-22-2 .....	Glyoxal.	1321-12-6 .....	Nitrotoluene.
118-74-1 .....	Hexachlorobenzene.	27215-95-8 .....	Nonene.
67-72-1 .....	Hexachloroethane.	25154-52-3 .....	Nonylphenol.
36653-82-4 .....	Hexadecyl alcohol.	27193-28-8 .....	Octylphenol.
124-09-4 .....	Hexamethylenediamine.	123-63-7 .....	Paraldehyde.
629-11-8 .....	Hexamethylene glycol.	115-77-5 .....	Pentaerythritol.
100-97-0 .....	Hexamethylenetetramine.	109-66-0 .....	n-pentane.
74-90-8 .....	Hydrogen cyanide.	109-67-1 .....	1-pentene
123-31-9 .....	Hydroquinone.	127-18-4 .....	Perchloroethylene.
99-96-7 .....	p-hydroxybenzoic acid.	594-42-3 .....	Perchloromethyl mercaptan.
26760-64-5 .....	Isoamylene.	94-70-2 .....	o-phenetidine.
78-83-1 .....	Isobutanol.	156-43-4 .....	p-phenetidine.
110-19-0 .....	Isobutyl acetate.	108-95-2 .....	Phenol.
115-11-7 .....	Isobutylene.	98-67-9, 585-38-6, 609-46-1, 1333-39-7 <sup>c</sup> .....	Phenolsulfonic acids.
78-84-2 .....	Isobutyraldehyde.		

§ 60.480a

CAS No. <sup>a</sup>	Chemical
91-40-7 .....	Phenyl anthranilic acid.
( <sup>b</sup> ) .....	Phenylenediamine.
75-44-5 .....	Phosgene.
85-44-9 .....	Phthalic anhydride.
85-41-6 .....	Phthalimide.
108-99-6 .....	b-picoline.
110-85-0 .....	Piperazine.
9003-29-6, 25036-29-7 <sup>c</sup> .	Polybutenes.
25322-68-3 .....	Polyethylene glycol.
25322-69-4 .....	Polypropylene glycol.
123-38-6 .....	Propionaldehyde.
79-09-4 .....	Propionic acid.
71-23-8 .....	n-propyl alcohol.
107-10-8 .....	Propylamine.
540-54-5 .....	Propyl chloride.
115-07-1 .....	Propylene.
127-00-4 .....	Propylene chlorohydrin.
78-87-5 .....	Propylene dichloride.
57-55-6 .....	Propylene glycol.
75-56-9 .....	Propylene oxide.
110-86-1 .....	Pyridine.
106-51-4 .....	Quinone.
108-46-3 .....	Resorcinol.
27138-57-4 .....	Resorcylic acid.
69-72-7 .....	Salicylic acid.
127-09-3 .....	Sodium acetate.
532-32-1 .....	Sodium benzoate.
9004-32-4 .....	Sodium carboxymethyl cellulose.
3926-62-3 .....	Sodium chloroacetate.
141-53-7 .....	Sodium formate.
139-02-6 .....	Sodium phenate.
110-44-1 .....	Sorbic acid.
100-42-5 .....	Styrene.
110-15-6 .....	Succinic acid.
110-61-2 .....	Succinonitrile.
121-57-3 .....	Sulfanilic acid.
126-33-0 .....	Sulfolane.
1401-55-4 .....	Tannic acid.
100-21-0 .....	Terephthalic acid.
79-34-5 <sup>c</sup> .....	Tetrachloroethanes.
117-08-8 .....	Tetrachlorophthalic anhydride.
78-00-2 .....	Tetraethyl lead.
119-64-2 .....	Tetrahydronaphthalene.
85-43-8 .....	Tetrahydrophthalic anhydride.
75-74-1 .....	Tetramethyl lead.
110-60-1 .....	Tetramethylenediamine.
110-18-9 .....	Tetramethylethylenediamine.
108-88-3 .....	Toluene.
95-80-7 .....	Toluene-2,4-diamine.
584-84-9 .....	Toluene-2,4-diisocyanate.
26471-62-5 .....	Toluene diisocyanates (mixture).
1333-07-9 .....	Toluenesulfonamide.
104-15-4 <sup>c</sup> .....	Toluenesulfonic acids.
98-59-9 .....	Toluenesulfonyl chloride.
26915-12-8 .....	Toluidines.
87-61-6, 108-70-3, 120-82-1 <sup>c</sup> .	Trichlorobenzenes.
71-55-6 .....	1,1,1-trichloroethane.
79-00-5 .....	1,1,2-trichloroethane.
79-01-6 .....	Trichloroethylene.
75-69-4 .....	Trichlorofluoromethane.
96-18-4 .....	1,2,3-trichloropropane.
76-13-1 .....	1,1,2-trichloro-1,2,2-trifluoroethane.
121-44-8 .....	Triethylamine.
112-27-6 .....	Triethylene glycol.
112-49-2 .....	Triethylene glycol dimethyl ether.
7756-94-7 .....	Triisobutylene.
75-50-3 .....	Trimethylamine.
57-13-6 .....	Urea.
108-05-4 .....	Vinyl acetate.
75-01-4 .....	Vinyl chloride.
75-35-4 .....	Vinylidene chloride.

40 CFR Ch. I (7-1-10 Edition)

CAS No. <sup>a</sup>	Chemical
25013-15-4 .....	Vinyl toluene.
1330-20-7 .....	Xylenes (mixed).
95-47-6 .....	o-xylene.
106-42-3 .....	p-xylene.
1300-71-6 .....	Xylenol.
1300-73-8 .....	Xylidine.

<sup>a</sup>CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

<sup>b</sup>No CAS number(s) have been assigned to this chemical, its isomers, or mixtures containing these chemicals.

<sup>c</sup>CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000]

**Subpart VVa—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006**

SOURCE: 72 FR 64883, Nov. 16, 2007, unless otherwise noted.

**§ 60.480a Applicability and designation of affected facility.**

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

(2) The group of all equipment (defined in § 60.481a) within a process unit is an affected facility.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, shall be subject to the requirements of this subpart.

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in § 60.486a(i).

(2) Any affected facility that has the design capacity to produce less than